

SUCCESS STORIES FROM ENTERPRISES IN MAURITIUS

CASE STUDIES FROM THE ILO SUSTAINING
COMPETITIVE AND RESPONSIBLE ENTERPRISES
(SCORE) PROGRAMME



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Ashit Gungah,
Executive Director, NPCC

Foreword

Small and medium enterprises (SMEs) play a vital role in our economy contributing to more than 35 % of our GDP and employing more than 50 % of the workforce. However, SMEs are facing various challenges in terms of low productivity, poor quality, lack of product innovation and diversification amongst others. View their importance, it is critical that we support SMEs in boosting their productivity and growth. When our SMEs do well, wages and living standards of many people are bound to rise.

Keeping this perspective in mind, in 2019, the National Productivity and Competitiveness Council (NPCC), partnered with the International Labour Organisation (ILO) to train NPCC trainers and to pilot the Sustaining Competitive and Responsible Enterprises (SCORE) programme in 5 enterprises.

The SCORE programme, rolled out to more than 20 countries over the last decade, improves productivity and working conditions in SMEs and demonstrates best international practice through a combination of practical classroom training and in-factory consulting. The programme was implemented from November 2019-February 2020. The five enterprises which participated in the programme were able to improve their businesses and reap various benefits through SCORE. This document outlines a few success stories from these enterprises. I am confident that these enterprises will continue their journey towards higher productivity and we wish them well.

Furthermore, we all witnessed how the world of business is being profoundly affected by the global virus pandemic. The crisis has already transformed into an economic and labour market shock, impacting all businesses regardless of their size. During this difficult time, the ILO SCORE Programme is one such programme that can support companies to recover from this turmoil.

I am thankful to the ILO and UNDP (PAGE programme) for making the funds available to implement SCORE in Mauritius and joining the league of countries to have benefitted from this world-class training. I also extend our gratitude to Mr Ganesh Kalyanan, our SCORE expert trainer deputed by the ILO and Mr Jens Dyring Christensen, ILO's Enterprise Development Specialist, for their devotion and guidance.

Acronyms and Abbreviations

EIP	Enterprise Improvement Plan
EIT	Enterprise Improvement Team
ILO	International Labour Organisation
NPCC	National Productivity and Competitiveness Council
PEEP	A Place for Everything and Everything in its Place
SCORE	Sustaining Competitive and Responsible Enterprises (SCORE) programme
SME	Small and Medium Enterprise
ToT	Training of Trainers
UNDP	United Nation Development Programme

Introduction

The National Productivity and Competitiveness Council (NPCC) in partnership with the International Labour Organisation (ILO) conducted the first Training of Trainers (ToT) to build the capacity of its trainers to implement the Sustaining Competitive and Responsible Enterprises (SCORE) programme in enterprises in Mauritius from the month of November 2019- February 2020.

Sustaining Competitive and Responsible Enterprises (SCORE) is an ILO global programme that improves productivity and working conditions in small and medium enterprises (SMEs).

Five enterprises in Mauritius were chosen to participate in the project. This collection of success stories illustrates some of the improvements experienced in these enterprises namely;

- AAH Upholstery Limited
- Box Manufacturing Limited
- Exotic Garments Company Limited
- Royaume de Délices Limited
- SSS Furniture Limited

Implementation of SCORE

The typical SCORE Training dispensed by the ILO comprises of five modules. The five SCORE Training modules cover Workplace Cooperation, Quality Management, Clean Production, Human Resource Management, and Occupational Safety and Health. Each module includes a two-day classroom training for managers and workers, followed by on-site consultations with industry experts that help to put the training into action in the workplace.

In the Mauritian context, an accelerated version of the SCORE Training was conducted whereby trainers completed module 1 of the SCORE Training. They were also introduced to the other four modules. A SCORE expert was deputed from ILO to conduct the training of trainers over a period of ten days.

The training consisted of both classroom learning and enterprise intervention. This included initial classroom sessions with trainers, moving on to carrying out a baseline assessment in the selected enterprises, followed by a classroom training workshop with participation of the SCORE expert, SCORE trainers-in-training and enterprises' representatives (both workers and management).

Following the training programme, a first follow-up visit to enterprises was held. Subsequently, trainers continued to undertake enterprise visits to support enterprises to improve their productivity.

Setting up of Enterprise Improvement Team

One of the key actions undertaken by enterprises participating in the SCORE programme was the setting up of an Enterprise Improvement Team (EIT) to foster workplace cooperation. The EIT comprising of representatives of both workers and management was tasked to identify and implement improvement projects in the company under the guidance of the SCORE trainer.

The formation of an EIT creates a new dynamic in the enterprise. It reinforces labour-management cooperation, builds communication and employee engagement, encourages the sharing of insights and ideas, and enhances problem-solving.

Employee involvement in the EIT promotes participative management and ensures that they have a say in changes being brought in from the very beginning. They also play the important role of engaging colleagues, by seeking their suggestions and involving them in implementing improvements, to gradually build an enterprise-wide culture change.

An enterprise improvement plan (EIP) was also designed and regularly updated to ensure that projects are judiciously implemented and results sustained.

Improvements in enterprises

Despite the short duration of the programme (November 2019- February 2020), various improvements were seen in the five enterprises participating in the project in various fronts. On the whole, the following were observed;

- The application of the 5S methodology to promote good housekeeping was embraced by the enterprises. 5S is a disciplined approach to keep the workplace clean and organized to improve productivity and quality. The name of 5S comes from five Japanese words that start with “S”, Seiri, Seiton, Seiso, Seiketsu and Shitsuke.
- Tackling pressing health and safety issues stood high in the agenda of most of the enterprises. Improving ergonomics in the workplace were also prioritised.
- Process improvement and shop-floor reorganisation to reduce non- value-added activities.
- Improving hygiene and amenities of employees was an area which most enterprises focused on.

- Gender sensitive measures were taken by some of the companies to address long-standing gender issues.
- The formulation and application of standard operation procedures to ensure that products are being produced as they should was also initiated by most of the enterprises.
- Another area which gained the attention of most enterprises was undertaking job assessments to assess skill gaps with a view to enhancing the skills of employees.
- Most of the enterprises also started collecting data such as on defect rate, cycle time, inventory turnover rate and customer return amongst others to guide them to better understand and monitor their production process with a view to enhance decision-making regarding productivity and quality management.
- Structured daily management meeting was adopted by all the enterprises whereby supervisors and employees met daily to review progress, discuss work plans and address emerging issues.
- Employees were encouraged to provide suggestions through the setting up of employee suggestion schemes.
- The use of tools and techniques like job sheets, value stream mapping and visual management amongst others also became popular.

Benefits to enterprises

The SCORE Training was beneficial to all the enterprises participating in the programme. Tangible benefits ranged from reduction of lead time to better space utilisation, smoother production planning, cost reduction, improved product quality and more customer satisfaction. Amongst intangible benefits, all the companies reported that workforce cooperation has been strengthened. Employees are now more engaged and enthusiastic to improve. The work environment is safer and teamwork, problem-solving and the spirit of continuous improvement is apparent in the companies.

What do the case studies portray?

The case studies compiled in this document reflect part of the improvements seen in the five enterprises through the implementation of SCORE Programme. The case studies highlight both technical improvements and how the SCORE Programme has impacted the well-being of employees in their respective enterprises.

AAH UPHOLSTERY LTD

Company Profile	
Name	AAH Upholstery Ltd
Address	Madrasa Road, Camp Chapelon, Pailles, Port Louis, Mauritius
Number of employees	24
Products	Loose covers for cars, roof, door trims, complete sofa/chairs upholstery, boat upholstery, neck rests, car mats and undertake all kinds of upholstery work.
Established	July 2012

Improving workplace efficiency through 5S

Chaotic and unsafe shop-floor

Since 2012, when AAH Upholstery Ltd started operation, many unnecessary items got accumulated in the shop floor and office area impacting on workplace efficiency and employees' morale.

In the words of **Anwar Himamalee, Director**



'It took forever to search for materials and retrieve samples. Unused items and work-in-process was reducing the usable space of the shop floor, blocking the walkway and creating risks for everyone. We were running out of space and even used emergency exits such as the staircase and terrace to keep materials. We could not receive visitors in our office and the situation was becoming even more chaotic during peak times. We were producing quality goods inefficiently. Our employees were working hard, but the work environment we provided was not good and safe.'

5S in action

Having followed the SCORE Training, AAH Upholstery pledged to implement company-wide 5S. An awareness session was held for all the employees to sensitise them about the 5S technique. The entire factory was divided into zones and 1st S (Sort) activities were initiated under the guidance of designated zone leaders. Unused items and waste materials were removed from the shop floor and office. The layout in the sewing section was rearranged to ensure a smoother production flow. Safety measures were undertaken to remove hazards from the shop-floor.

To promote the 2nd S (Set in Order), the storage of raw materials was revisited. Items were properly labelled so as not to waste time looking for them as was the case earlier. Employees were encouraged to adopt the mantra 'A Place for Everything and Everything in its Place' (PEEP). Tool boxes were also provided to employees to arrange their tools properly to avoid misplacing them and keeping them handy all the time. New bags were acquired to stock samples which were piled up on racks.

A general cleaning was conducted to remove dust and dirt on windows, fans, the terrace, staircase and the shop-floor.

To encourage employees to practice the 3rd S (Shine), a cleaning schedule was established- employees had to clean their workplace before breaks.

Results obtained

Within three months since the starting of 5S activities, noticeable improvements were seen across the shop-floor and office.

1. Space has been recovered and search time for materials and documents has been reduced as follows:

Zone	Area	Space recovered	Search Time	
		After 5S(m ²)	Before 5S (seconds)	After 5S (seconds)
A	Office	2.16	120	60
B	Staircase and terrace	1.8		
C	Mess	6.9		
D	Assembly section	5.36	120	40
E	Sewing section	1.7	85	40
F	Sample making	2.2	300	120
G	Pattern making and cutting	2.6	180	80
H	Toilet	0.8		
I	Sofa/ foam preparation	4.4	180	50
J	Boat/ Foam	6.8	120	30
Total		34.72	1105	420
% of space recovered out of total		34.72/575*100=6.03 %		

2. Prior to 5S implementation, the staircase leading to the exit door was stacked with unused materials. Fire-extinguishers and the first aid box were unreachable. After 5S implementation, the workplace is now safer and cleaner. Obstacles to all exit doors have been removed. The location of fire- extinguishers has been reviewed in line with National Guidelines for Fire-Safety. The first aid box was placed within reach. An audit of first aid materials was conducted and expired items were replaced with fresh ones.

Before 5S



Blocked staircase

After 5S



Staircase cleared



Fire-extinguishers hidden



Fire-extinguishers are now reachable



First aid box out of reach



First aid box within reach and materials renewed

- Before SCORE Training, workplace cooperation was poor. Employees and management barely worked together and employees' morale was low. The implementation of 5S in the company has made employees realize that they need to work as a team to keep the workplace neat, tidy and orderly. They worked hand in hand with management to review workplace organisation and freely shared their ideas. Employees are now happier and feel more confident to work closely with management for the benefit of one and all.



“After the awareness session I followed on 5S, I felt motivated to do something for my section. Together with my team, we started applying the techniques we learned. It was not easy at first. But we got the knack of it. We no longer waste time looking for our raw materials. Everything is in its place and well labelled. I even started applying 5S at home. I am thankful to the management for having given me the opportunity to do something for the company, for our own benefit. It was heart-whelming seeing our bosses working hand in hand with us to implement 5S. I have a special thought for my colleagues from Bangladesh, who recently joined our team, and also embraced the culture of 5S we want to embed. There is a feel-good factor in the whole company now.” Pakeeza (zone leader, Sewing section)

- There were no clear area markings on the shop floor and materials were placed anywhere and everywhere before 5S implementation. In a bid to apply the 2nd S, alleys were cleared and the shop- floor was clearly marked to define working area, work in progress, incoming and outgoing bay amongst others. The shop- floor has been freed from clutter and better organised.



Lessons learnt

5S is a disciplined approach to keep the workplace clean and organized to improve workplace efficiency. It is the foundation to improve productivity and quality in a cost-effective manner. Besides fostering teamwork in the workplace, 5S triggers the spirit of continuous improvement which is critical to survive in today's competitive environment.



“Any 5S initiative needs the concerted effort of both employees and Management. Together, we can go further, faster if we want to take AAH to a first-class workplace.”

Akmez Himamalee, Director

Future plans

AAH Upholstery Ltd is keen to embrace the 5S culture. In the spirit of continuous improvement, the company will now adapt the 4th S (standardization) principles. It has already started developing 5S checklists, rules and procedures for each zone to promote a good work environment and make the first three S's second nature for everybody. Moreover, a 5S award is being organised in order to incentivize employees to adopt the 5S methodology. Since the company will soon be re-located, the management team is committed to see to it that 5S principles are observed in the design of the new shop-floor and office.

Towards better employees' amenities and hygiene at AAH Upholstery Ltd

Poor employees' amenities and hygiene

As a growing company, AAH Upholstery Limited was focusing on consistently meeting customer needs and producing quality upholstery products. However, there were some factors of success relating to employees' amenities and hygiene that were overlooked by the company and were addressed during the implementation of the SCORE Training. Amongst, is the state of the mess room provided to employees.

In the words of **Mrs Meeta Booluck (Mess room leader and Overlock machine operator)**



'When I joined the company in the year 2017, we did not have a space to eat our food. My colleagues and myself used to stand outside to eat. As years went by, we were provided with a mess room, equipped with a refrigerator and a microwave. However, we could barely have our food in the mess room since there was only one small table which could barely accommodate a few people. Moreover, the mess room was in a mess, with fabrics and other products stacked on the floor.'

Toilet facilities were also poor. Both male and female employees were using same amenities. Unused items were kept in the toilet premises. Tissue paper and soap were not being provided on a regular basis to promote hygiene. The alleys leading to the toilet were also crammed.

Catering to needs of employees

'Take Care of Your Employees and They'll Take Care of Customers'. Taking cognizance of the importance of treating their employees better to boost engagement and hence productivity, one of the key initiatives undertaken by AAH Upholstery Limited, after the SCORE Training, was decluttering the mess room. An additional table was also put at the disposal of employees to better cater to their needs.



Mess room before SCORE Training

Messroom used as a store



Mess room after SCORE Training

Unnecessary items removed from messroom and one additional table provided

The mess room was also equipped with a water dispenser so that employees could get access to safe drinking water. Lockers were also provided to safeguard the belongings of employees.



Water-dispenser now available in messroom

Toilet facilities were also improved. Alleys leading to the toilet were cleared and marked. Unnecessary items which were stored in the toilet were removed. Soap and tissue paper were provided and the toilet was repainted. In order to ensure that the toilet is kept cleaned all the time, a toilet cleaning checklist was designed and used for inspection purposes. One of the Enterprise Improvement team members took the responsibility of ensuring that supplies like soap and tissue paper were always replenished. Moreover, a gender-sensitive measure was applied to ensure that female employees feel more secure when using toilet facilities as this was raised as a matter of concern.



A new signage system for toilets to indicate whether male or female using toilet



Toilet was not clean and basic supplies were not provided.



Toilet has been painted and is cleaned on a daily basis. Tissue paper and handwash was made available. A signage to remind employees to flush the toilet after use was fixed to the wall.

Challenge faced and how it was overcome?

Though employees had a better mess room, key challenges including keeping the mess-room neat and tidy after use and ensuring proper usage of the refrigerator, microwave and water dispenser still needed to be addressed. The refrigerator was dirty and sometimes employees forgot to remove stale food items leading to bad odour. The microwave was not cleaned after use. Some of the employees using the water dispenser spilled water on the floor without bothering to clean it up hence promoting the risk of accidents.

While pondering upon how to tackle these issues, the Enterprise Improvement Team at AAH Upholstery Ltd decided to designate the messroom as a 5S zone and appoint a leader. The members unanimously proposed Meeta as the mess room leader since not only she uses the messroom, unlike Bangladeshi colleagues who have their meals in their dormitories, but she also has good leadership skills which would prove useful. Meeta was consulted and she gladly agreed to lead 5S activities in the messroom. Since her appointment as messroom leader, Meeta ensures that tables and chairs are properly cleaned and kept in order after use. She also keeps an eye on colleagues using facilities provided to them such as the microwave and water dispenser to ensure their proper usage. As a 5S leader, she constantly reminds everyone about the need of keeping the messroom spic and span and closely supervises the cleaner who cleans the place.



'Choosing Meeta as the mess-leader was one of the best decisions we took. She is doing an excellent job. She even brings in fresh flowers for the mess room every day. Not only is our mess-room clean, but our employees are happier now, more motivated and engaged. They feel that we do care for our people.'

Anwar Himamalee, Director

Happier and more engaged employees

Employees at AAH Upholstery Ltd now have a better equipped, cleaner and more spacious mess room. Toilet facilities have been improved and employees are happier as the company has been able to address their basic needs.

Lessons learnt

Enhancing productivity in the workplace starts with improving employees' satisfaction and giving them the right amenities. But employees should also use facilities provided to them responsibly. Employees have also realized that they need to support management in this endeavour. Labour-management cooperation is important for the good running of the company. *'We are thankful to the management for understanding our needs and addressing them. We also need to play our part. We should all work as a team to improve our own welfare at work.'* Mrs Meeta Booluck, Mess room leader.

Future plans

AAH Upholstery Ltd is committed to further improve hygiene and employees' amenities. It envisages to upgrade facilities offered to foreign employees in their dormitories. A microwave has already been bought for this purpose. It is also working out on the possibility of providing uniforms to female employees so that they are at par with their male counterparts who are already given uniforms.



BOX MANUFACTURING CO LTD

BOX MANUFACTURING CO LTD

Company Profile	
Name	BOX MANUFACTURING COMPANY LIMITED
Address	Royal Road, Morcellement Saint André, Plaine des Papayes, Mauritius
Number of employees	34
Year of Establishment:	17 July 1987
Products	Carton packaging, giveaways and office stationery

Improving Efficiency Through Kanban

Push system of production

Box manufacturing produces an exclusive range of stationeries of the brand Elite comprising of a number of products including 162 different types of files across 8 different models. The files are manufactured prior to client orders and the company ensures that they always have a stock of files worth one month of sales. However, this created a big problem for people of the shop-floor, dealing with high Work in Process (WIP) inventories.

Work in process in file department



Work in process on the production floor



Parts to be assembled on files kept in bulk on production floor



File department stocking in other zones

With a high level of WIP in the shop-floor, it was difficult to monitor the work flow. Materials were being stacked everywhere, even in other zones other than the filing department. Overall, it was cumbersome to move around, and workers were not comfortable working in such an environment.

Introducing Kanban

Under prevailing circumstances, it was deemed important by the SCORE trainer, after discussion with the Enterprise Improvement Team, to introduce the Kanban system on a pilot basis in the company.

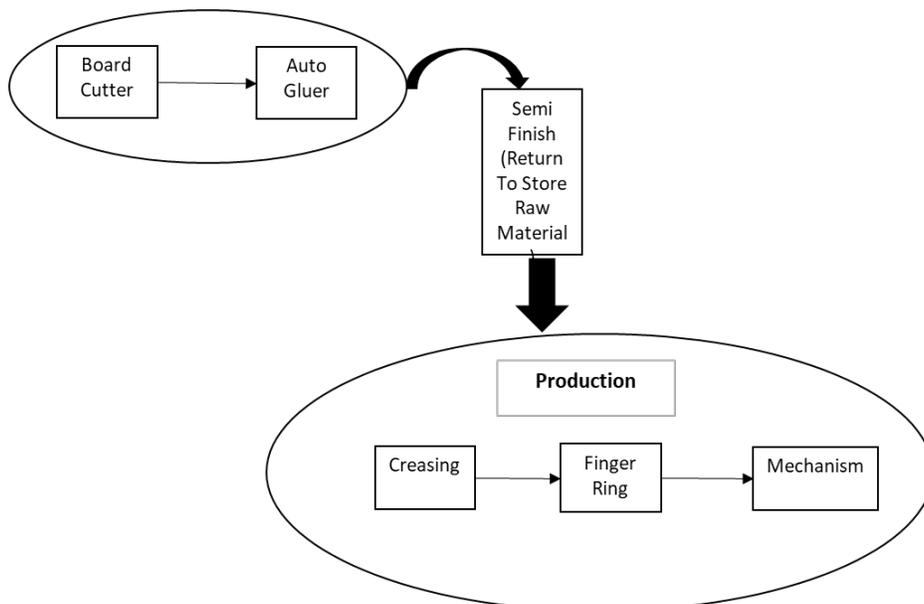
Kanban system is a mechanism to manage and control flow of material in manufacturing companies. It is one of the tools under lean manufacturing system that can achieve minimum inventory at any one time. The Kanban system requires production only when the demand for the products is available. Kanban facilitates the elimination of waste as it provides the opportunity to visualize exactly what is happening on the shop-floor and enables identification of what time is spent in value added essential process steps and what non-value-added steps consumed valuable time.

Prior to the introduction of the Kanban Strategy, all unwanted items were removed and disposed of in the filing department. All needed materials were then neatly organised and stored. An analysis of the Bill of Materials was done to determine which product required more parts. Based on this analysis, it was decided to pilot the Kanban project with Level arc file products. Since the cycle time of each process was already recorded by the company, the data was used to implement the pilot Kanban project.

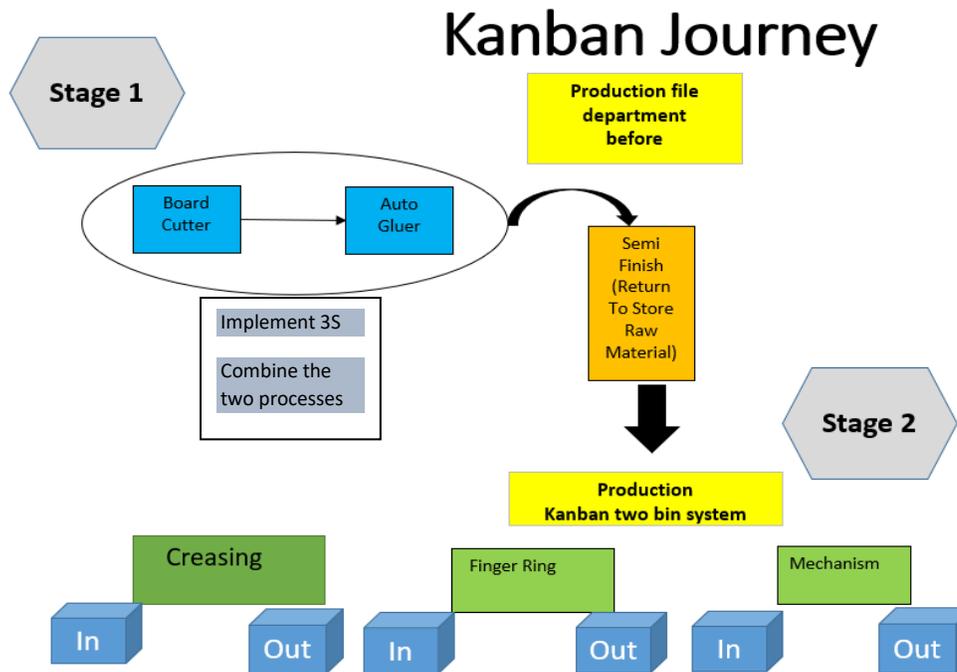
Improving the process

During analysis it was found that there was more WIP at the stage of auto gluing in the production of files.

WIP identified in the process



The improvement of the process was planned in two phases:



Stage 1

A monthly 5S audit was conducted in zone 3 (the file department) to record the 5S status. The equipment used by operators were labelled and a list of equipment was added to the toolboxes. 'In' and 'Out' cones were put in place to indicate where raw materials would be kept and where semi-finished materials would be stored.

Labelling to indicate the in and out for each operation





Labelling of tool box



5S on file department table

Stage 2: Introducing a semi-finished process

Once the 3S were stable, management decided to introduce a semi-finished process after board cutting and gluing. The idea was a better pull as per production capacity.

JOB CARD			
DEPARTMENT: EL		SALES REP: Marco	
NO. IN: 02KJ2780	JOB NO: ELM_03016	ORDER DATE: 25/09/2019	CONF. DEL. DATE: 15/11/2019
CUSTOMER: POK MANUFACTURING LTD		REQ. DEL. DATE: 15/11/2019	
REMARKS:			
PRODUCT INFORMATION		PRODUCT DESCRIPTION: CARTE CUT FILE FROM BLUE 2500M	
JOB TYPE: SHIPMENT	DIMENSION: NA	QTY ORDERED: 2,000	
QUALITY: JUSTICE	BRAND SIZE BOARD:	QTY SCRAPS NEEDED:	
COLOR: BLUE	Y-LINUT PER BOARD:	DIAMETER/PLY:	
WAS: Z05		STY FOR PROG:	
REMARKS:			
DIE CUT: <input type="checkbox"/>			
PLANNING INFORMATION			
PRE T. NA	PRINTING: 0	SOLTING: 0	SECURITY: 0
REWORK:		ORDER:	YES

Job card



Semi-finished goods

Tangible benefits

- Space saved in file department: 13 %
- Searching time reduced by 23%
- Faster delivery to customer for the Level arc file product

Intangible benefit

- Morale of employees improved due to better workplace environment
- Employees are less stressed and tired

Search time was reduced by 23% after implementing the new process of the semi-finished products. The department has now a smoother flow of materials and achieved the expected result after implementing the second stage.

Testimonial



“I work in the file department as machine operator and the SCORE programme has improved our work life. I would like to thank the SCORE Trainers and management for this programme.”

Jean Noel



“I believe in continuous improvement and I am happy that the SCORE project has given Box Manufacturing Ltd the opportunity to be leaner.”

Mathieu Lionnet, General Manager

Promoting Diversity and Inclusion through workplace cooperation

Diversity and Inclusion

Box Manufacturing employs two persons with disabilities, Benjamino DOOLEE who joined the company on 03 May 2011 and Daniel NAIGUM who joined on 14 January 2014. Both Benjamino and Daniel are workers with hearing and speech impairments and work in the “Core Tubes” Zone.

As part of the SCORE programme, the EIT has highlighted the added value of these two employees with disabilities when they were trained during the implementation of 5S.

How has SCORE helped the inclusion of Benjamino and Daniel in workplace cooperation?

During the SCORE programme, all employees were provided with training on 5S. However, reasonable adjustments were made for Benjamino and Daniel in terms of training. They were provided with a special training adapted to their needs. The training involved the viewing of a detailed video showcasing all the 5 stages for 5S. The use of visual aids together with the assistance of the production coordinator, who facilitated the training, helped imbibe a culture of 5S in Benjamino and Daniel.



Benjamino and Daniel after 5S Training

Benjamino and Daniel were able to identify and point out in their Zone 4 (Core Tubes) all the stages they went through for 5S in their Zone. They also understood the need to keep the finished products (long tubes) within the yellow markings of their Zone. They would report to the production coordinator when materials from other Zones would be kept within their Zone and would place the penalty card on the materials. This shows that they are also empowered to identify waste and are able to report about it thus displaying their knowledge of 5S.

Before



Tubes (finished product) did not have a designated area for storage on the shopfloor. Materials were kept outside yellow line markings.

After



Raw materials kept in a designated area on the shopfloor. The 'In' stand was designed by Benjamino and Daniel using the Long Tube.



Tubes (finished products) kept in a designated area and materials kept within yellow lines. The 'Out' stand was designed by Benjamino and Daniel using the Long Tube.



Zone was also labelled

Is Inclusion a key challenge?

The International Labour Organisation (ILO) upholds the fundamental principle of equality of opportunity and treatment¹. ILO promotes the rights of persons with disabilities to decent work especially with regards to informational barriers to equal opportunities in the world of work². Access of persons with disabilities to decent work is important both as an essential right and in terms of the economic advantages it brings. To achieve this goal, the ILO works to increase the employability of persons with disabilities, to support employers becoming more inclusive and to promote enabling legislative and policy environments³. Inclusion is a key challenge in enterprises as the employment of persons with hearing disabilities lead to a company having to ensure that there are no communication barriers between the employees. Before the SCORE Training, the company did not realise the need for reasonable adjustments for Benjamino and Daniel even if their contribution to the workforce was highly valued. Special meetings are now being catered for them by the EIT with the support of the production coordinator, to ensure that they understand any existing or new projects being implemented at the level of the company.

Is SCORE Training promoting inclusion at the workplace?

The SCORE Training has helped to highlight the value added of persons with disabilities and has provided the company with relevant information on reasonable adjustments to be provided for employees with hearing impairments.

During the SCORE Training, the Trainer has helped improve effective communication and information-sharing through Posters, Notice Board, Enterprise Improvement Team which all contributed to breaking the barriers so as to promote diversity and inclusion.

Benjamino and Daniel are now being considered to integrate the EIT as they have demonstrated a keen interest in the SCORE project. The use of visual aids will continue throughout the company to promote inclusion and Benjamino and Daniel are being encouraged to communicate any ideas that they may have through pictures and videos. They are also currently being trained by the EIT to carry out a 5S Audit in their Zone. The SCORE training empowered them with key skills and knowledge to better integrate the workforce, hence reinforcing workplace cooperation.

¹ Promoting Diversity and Inclusion Through Workplace Adjustments – A Practical Guide, Geneva: ILO 2016

² Disability and Work, <<https://www.ilo.org/global/topics/disability-and-work/lang--en/index.htm>>

³ ILO and Disability Inclusion, September 2015.



“I am happy with Box Manufacturing. I understand 5S and I apply it to my work on a daily basis. Thank you NPCC, the SCORE programme and ILO”

Daniel (Helper)

“My work has always been valued at Box Manufacturing. I was promoted from helper to machine operator in 2017. I am happy that the SCORE programme is inclusive and that I have been able to benefit from the 5S training. 5S has helped me in my work as an operator in the Core Tubes Zone.”

Benjamino (Operator)



“I am happy that the SCORE Training has empowered Benjamino and Daniel. At Box Manufacturing, we highly value all our employees and always want them to continuously improve.”

EXOTIC GARMENTS LTD

EXOTIC GARMENTS COMPANY LTD

Company Profile	
Name	Exotic Garments Ltd
Address	St. Anne, Rose Hill
Country	Mauritius
Established	2005
Number of employees	201 (including Expatriates from Bangladesh & China)
Products	Menswear, Womenswear, Kidswear (Full Body) e.g. T-Shirts, Shirts, Skirts, Dresses, Shorts, Trousers etc.
Brand Served	Island Haze, Body & Soul, Quicksilver and Roxy
Customers	Public/Tourists in 62 Retail Outlets across the island

Workplace Cooperation & Lean Management for Higher Productivity: A Case Study at the Finishing Section

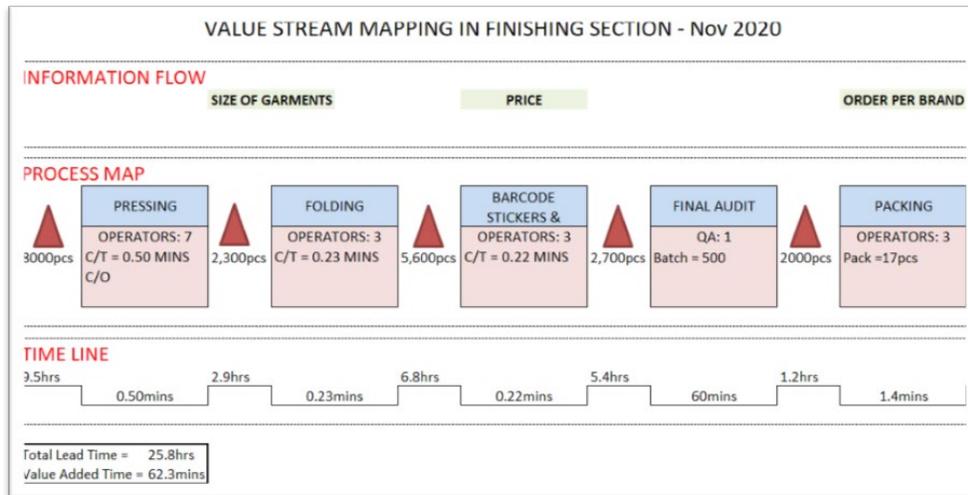
High inventory in finishing section

The high inventory level in the finishing section was raised as a matter of concern by the Enterprise Improvement Team (EIT) at Exotic Garments. The following issues were highlighted while using the value-stream map technique (figure below) to better understand the situation.

- More than 20,000 garments were tied as inventory in the section.
- The actual value-added time was only four percent (4%) of the total lead time (25 hours), resulting in a delay of above two days in delivery to the retail shops and the warehouse.
- With an average target of 6,000 pieces per day for 17 operators, the output rate per employee was only 353 garments packed for shipping per day.
- Measurement of the wastes in terms of inventory on the tables and under the tables, unnecessary transportation from one table to the other and above all excessive motion was a real eye-opener.
- For an order of 800 pieces of garments to be shipped, pressed garments were piled up wherever space was available in the finishing section.
- The operators from the folding table would walk for more than 200 metres to and from the table where the order is stacked.

- The barcodes for tagging are available only when the price is known. On an average, this information takes above seven hours to be relayed to the finishing section. Hence, the pile of 800 pieces would be waiting on the tables.
- Once price is known, operators would print the barcode and tag each piece size-wise. Samples are sent for a final audit by the end-of-line quality controller (QC). However, in the process, sizes are mixed leading to reprocessing before packing and shipment.

Current Value Stream Map - Finishing Section



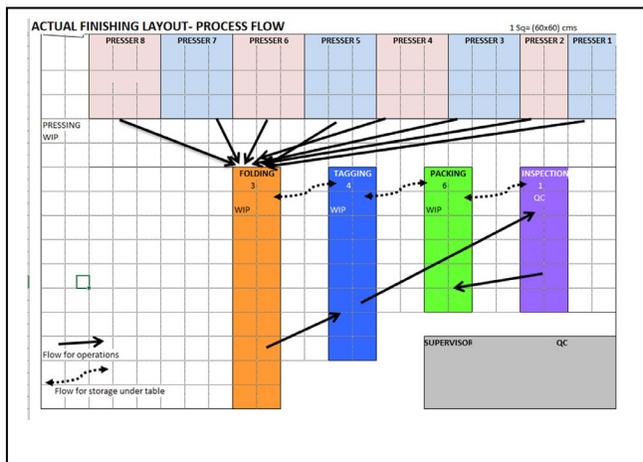
Improving the situation

a. Introducing cellular manufacturing

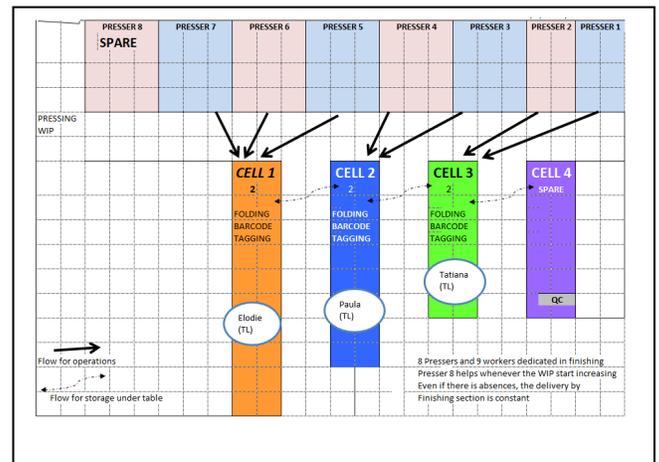
One of the causes of high inventory level in the finishing section was that workers were specialised in one task and products were piling up while they were processing orders. Upon discussion with the EIT, it was decided to pilot the concept of cellular manufacturing in the finishing section. A new layout was introduced (figure below). The nine operators responsible for folding, tagging and packing were divided into three teams to work into three cells. Each cell had a team leader to ensure that the right order with the right size and in the right quantity was packed and delivered to the right destination and at the right time. All the operators were trained to be multi-skilled so that each cell could complete an order independently. Two pressers were also attached to each cell. Pressers were asked to complete one order prior to moving to the next. If one presser would complete his load, he was asked to join any cell to finish the current order. The average target of 6000 garments per day was divided equally among the three cells.

However, the transition was not smooth. One of the team leaders was arguing that her duty had increased from one task to multiple tasks. But, Mervin Veerappa, the Production Manager had a different point of view on this and he stated: “Once a problem is identified, I make decisions fast and I request my team to take action at the earliest possible. Teamwork is my success formula. I expect my team to be dynamic and flexible.”

Layout and Process Flow



Layout before



Layout after

b. Creating awareness about seven wastes and practising good housekeeping

Structured daily line meetings were held during which supervisors of the finishing section created awareness about the seven deadly wastes and the importance of good housekeeping through 5S. Given the fact that a majority of the workers in the factory were expatriates, posters were designed in the local language spoken by the workers to ensure that they better understand these new concepts and put them into practice.

Daily line meetings also led to better communication between supervisors and workers. Issues identified were systematically recorded and resolved. In order to walk the talk about practicing 5S, Anne Marie, the supervisor started ‘Seiso’ practice by cleaning the section. “I want to achieve above 100,000 pieces of garments for this month and it starts with having a good work environment”, she explained. A roster was designed to ensure that each operator practised 5S.

Posters: 7Wastes & 5S in Bengali and in Chinese

Japanese	English	Bangla	Meaning - বাংলা
Seiri	Sort	বাই কমা Bachhi kama	Remove what is unnecessary from an area. Remove what is not needed or remove what is not used often.
Seiton	Set in Order	বাবস্থা করা Babastha kara	Arrange the necessary for use in a way that allows things to be found and returned to their original place.
Seiso	Shine	পরিষ্কার কর Pariṣkāra kara	Cleanliness and maintenance are essential for safety and quality. Shine the work area to prevent accidents and ensure quality.
Seiketsu	5S Standardize	স্বচ্ছতা কর Swachhata kara	Establish the best practices for the 5S and make them a habit. Signage and standardization are essential for consistency and safety.
Shitsuke	Sustain	বাহ্যিক রক্ষা Bajyika raksha	Maintain the best 5S and make it a habit. Signage and standardization are essential for consistency and safety.

Japanese	English	Chinese	Meaning - 意思 - Yisi
Seiri	Sort	分類 Fēnlèi	Remove what is unnecessary from an area. Remove what is not needed or remove what is not used often.
Seiton	Set in Order	安排 Ān pāi	Arrange necessary equipment in the order of use.
Seiso	Shine	清潔 / 掃 Qīngjié / jǎochǎo	Cleanliness and maintenance are essential for safety and quality. Shine the work area to prevent accidents and ensure quality.
Seiketsu	5S Standardize	標準化 Biāoxǎnhuà	Establish the best practices for the 5S and make them a habit. Signage and standardization are essential for consistency and safety.
Shitsuke	Sustain	保持 Bǎochí	Maintain the best 5S and make it a habit. Signage and standardization are essential for consistency and safety.

7 Deadly Wastes

7種致命浪費 (7 Deadly Wastes)

Waste is anything other than the minimum amount of equipment, materials, parts, space and worker time which are absolutely essential to add value to the product.

浪費是任何不是絕對必要的設備、材料、零件、空間和工人時間的最低數量，以爲產品增加價值。

English	Bengali & Chinese	Meaning - 意思 - Yisi
Inventory	Inventory Inventori	Over production is unnecessarily producing goods from demand. Producing too much inventory is a waste. The inventory of inventory, increases the risk of producing the wrong thing and increases the possibility of being in stock but not at demand.
Transportation	Transportation Transportation	Inventory is a waste because it is not being used. Inventory is a waste because it is not being used. Inventory is a waste because it is not being used.
Motion	Motion Motion	Inventory is a waste because it is not being used. Inventory is a waste because it is not being used. Inventory is a waste because it is not being used.
Waiting	Waiting Waiting	Inventory is a waste because it is not being used. Inventory is a waste because it is not being used. Inventory is a waste because it is not being used.
Overproduction	Overproduction Overproduction	Inventory is a waste because it is not being used. Inventory is a waste because it is not being used. Inventory is a waste because it is not being used.
Overprocessing	Overprocessing Overprocessing	Inventory is a waste because it is not being used. Inventory is a waste because it is not being used. Inventory is a waste because it is not being used.
Defects	Defects Defects	Inventory is a waste because it is not being used. Inventory is a waste because it is not being used. Inventory is a waste because it is not being used.

Good housekeeping through teamwork and roster to sustain 5S



BEFORE

DURING

AFTER

Less Wastes, Higher Productivity

The tools on Lean Manufacturing System acquired during the SCORE training enabled the EIT to transform the process at the Finishing Section. The status of the seven wastes is as summarised in the table below.

Results achieved

Waste	Before	After
Inventory	20,000 garments (accumulated over the week)	5000 garments (accumulated over the day)
Transportation	20,000 garments moved from one table to the other over a distance of 200m	About 800 garments moved for each order from pressers to each cell
Motion	200 m per operator per day across the Finish	10 m per operator per day within the cell
Waiting	1 day (waiting for price & assortments)	No waiting (available in advance)
Overproduction	20,000 garments (pressers feeding the tables irrespective of the inventory)	None (Spare presser stop to help the cells complete their order)
Over processing	800 garments reworked in case of mixing of size	A few, if any defects identified at the end of line
Defects	800 garments	A few

The impact of reducing seven wastes in the Finishing section had both tangible and intangible benefits. With the inventory level reduced from 20000 garments to less than 5000 garments, the transportation from one table reduced drastically, and the operators benefitted most.



“I am less tired. I don’t have to move around every table. Now it is direct from pressing to my cell and mostly on the table rather than under the table. Even if my colleague is absent the work continues as we have better teamwork. Work is being done much faster as more than one process can be done on the same table.”

Elodie, Team Leader, Cell 1

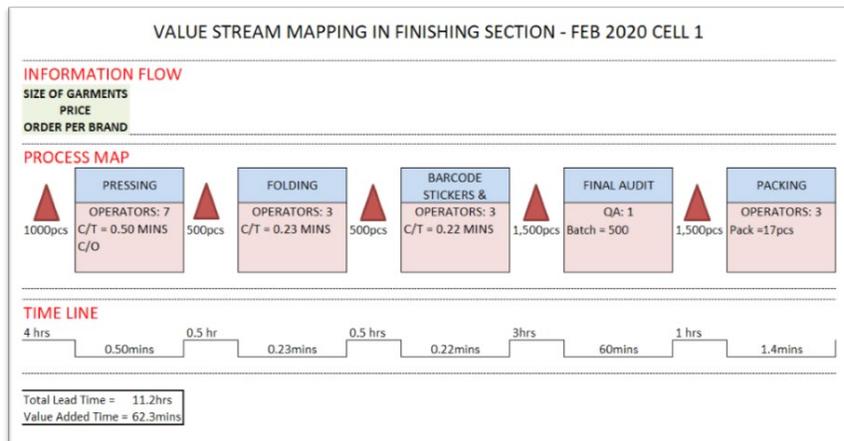
- Following the transformation in the Finishing Section, the target above 100,000 garments for the month was reached representing an increase of 11% from previous month.
- The total lead time decreased by 56% from 25 hours to 11 hours.
- The number of operators was the same except that in the month of January and February, even though an average of 2 operators was absent, the output rate increased from 353 garments to above 400 packed for shipping per day.
- With the new layout, the performance of each cell is, as above, 30000 garments per month. The team in the Finishing Section was overjoyed to have reached the highest delivered quantity for February 2020.
- Following the successful implementation of the project, the EIT submitted the Standards of Procedures (SOP) for approval by the Production Manager.

Performance of the cells at the Finishing section



Workplace cooperation and Lean Management were the foundation for higher productivity at the Finishing Section with the minimum investment. The transformational journey boosted the self-esteem of the EIT and stimulated them to sustain improvements across the whole factory.

New value stream map – finishing section



“Everything good lah. On same table folding, tagging and packing, barcode and tags. Pas problem. Sab good lah”

Momina, Bangladeshi, Cell 1

“Making the invisible visible”

Visualization: key for alignment

Visualization works well from a human perspective because people respond to and process visual data better than any other type of data, may it be written or verbal. As per Stephanie, supervisor in the Sorting, department, Visual management is a good thing.

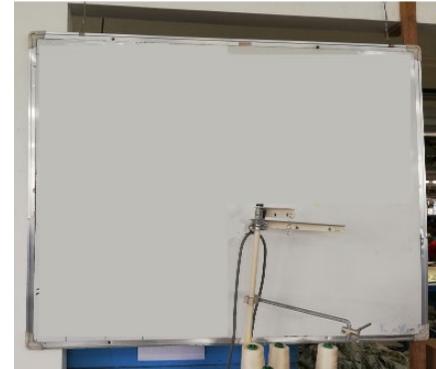
Stephanie worked in the factory for almost seventeen years. She joined the company as an operator in the Sorting department and was promoted as an Industrial Engineer and Supervisor.

Sorting department – the heart of the company

In 2007, the Sorting department was separated from the Cutting department. The layout of the factory was restructured with the Sorting department set up next to the production lines. The job tasks of a sorter are to take a stack of cut fabric from downstairs – the Cutting department – and make bundling to be sent to the next process which is sewing. The process of sorting is done manually and requires an eye for detail. While bundling, the sorter has to make sure not to leave cut pieces with defects like holes or stains. Stephanie describes the section as the heart of the company. For her, any mistake from the department will be carried forward and may end up as a finished defect that either has to be reworked or discarded.

No Visualization – No Alignment

“What’s in it for me” this is the statement that some workers shouted when it comes to how a whiteboard can be a source of organization, motivation and discipline for them. Since its existence, the department had a whiteboard which had never been really of good use. The department was facing chaos as it was lagging behind the target when it comes to providing the production lines with the cut sorted pieces. The idea was to have a target higher than the production lines. For instance, as Stephanie explained, if the production lines have a target of 114,000 pieces for the month, the sorting area will have to be well ahead of that target. By how much? they never really knew. All they knew was to meet the target which was never defined and never illustrated. The operators were demotivated with a vague sense of what needs to be done. Line meetings were not done regularly which added to the monotony and the state of disconnection that employees had with their jobs. Problems that could have been fixed right away took days and weeks to even surface, and the time required to correct errors took much longer.



A Blank Board at the Sorting Department of no use since long

Alignment through Visualization

In November 2019, Stefanie Labonne, together with other supervisors of Exotic Garments Company Ltd, were invited to attend a SCORE Training. What happened next was even more interesting. As the Supervisor walks in her department after three days of intensive training, she was convinced and equipped to make a great deal of change in the section. Stefanie Labonne started with what is already there – the blank whiteboard. She was exposed to the tools to improve productivity and working conditions. She started to design her process flow and realized that a lot of time, 1-2 hours were lost per day for the operators to go downstairs to pick-up the cut pieces for sorting. To rectify this, the Supervisor requested to have a helper in the department who will do this work.



Mrs. Stephanie Labonne, Supervisor at the Sorting department explaining, during a 10-min line meeting session, the figures of the day

She also realizes that she needed additional metal racks in order to store pieces so that the operators have all their requirements for the day. She asked management to have these in place and it was agreed. According to her, SCORE Training is the 'Redbull' that has boosted and energized the department.

Stefanie Labonne reorganized the visual board with the following columns: Date, quantity sorted, cumulative quantity and average sorted per day. She also calculated all the Saturdays where normally everyone finished at 13 hours and also the number of public holidays where there is usually no work. This planning helped her to know the number of days available and the number of sorting that can be done to still remain on target.

Benefits of Visualization

The SCORE Training changes everything. One operator shared how happy she is now because she does not have to go downstairs for the cut pieces. The figures on the board are so meticulously written and communicated that in everyone's mind the target is clear and they now know where they stand in terms of target. Workers got to know each other even better, as the visual board has enhanced the communication linkage. We observed a spirit of solidarity among the employees where there is mutual help and cooperation. As observed by Stefanie Labonne, this was not very present before the introduction of the visual board and before the SCORE Training. Furthermore, instead of waiting until the coming of the line meeting to look at the visual board, it was observed that operators could track their performance.

Importantly, workers are struggling less while performing the sorting exercise. The visual board changed the statement of the supervisor from "it's hard to fix what you can't see" to "if I can see it, I can fix it." Today she is able to assign the right person to the right job as the visual board enables monitoring of the skills of the operators. For her, if an amount of 500 pieces is expected by mid-day and this is not happening, she will go from operator to



All operators of the Sorting Department gathered around the white board during a 10-min line meeting

operator to see what is going wrong. She shared that left-handed operators, for instance, have a difficulty to sort well and as such she is able to provide for a shift on the fusing machine. The motivation and the enthusiasm of the employees at the Sorting department knew no bounds. It was amazing how such a simple and low-cost technique had such a wide impact.

As Sudha, co-supervisor and operator at the department, stated “If you told me some days before that a whiteboard would have changed my life, I would not have believed you. Today, I want to wake up to come to work. I do not feel lethargic and I am motivated because my efforts are valued and the figures talk about my contribution. This board not only shows the figures but it tells me that I am on track and I am performing well.”

As rightly pointed out by the Production Manager: ***“I cannot measure what I cannot see and I want this organization to be a thinker where everyone can be empowered to be proactive and solution-oriented.”*** [Mr. Mervin Veerappa, Production Manager at Exotic Garment Ltd](#)



ROYAUME DES DÉLICES LTD

Company Profile	
Name	Royaume des Delices Ltd
Address	Mare Tabac, Riviere du Poste
Number of employees	17
Products	Faratas & Snacks

Introducing an efficient store management system

The challenge

As a small family business, Royaume des Délices faced major challenges in managing its storeroom. Poor housekeeping in the storeroom has caused a loss for the company as a great deal of time was spent in searching for needed materials. On an average, workers wasted 3-4 minutes looking for materials. Safety was another issue since materials were kept everywhere, including the floor, blocking the entrance and exits. Similarly, there were the following problems in the storeroom:

- Items were not labelled and kept haphazardly.
- First in First Out (FIFO) principle was not being applied for storing products on shelves.
- Both finished goods and raw materials were piled in the storeroom, on the same shelf, making it difficult for workers to differentiate between raw materials and finished products.
- Stock control was being done on an ad hoc basis.
- The storeroom was barely cleaned.



Used and unused items stacked together



Items not properly arranged



No systematic arrangement on shelves with no labelling of items



FIFO principle not applied

The Enterprise Improvement Team in Action

Conscious of the fact that good store management is a key step to address the overall efficiency of operation, the Enterprise Improvement Team, set up at Royaume des Délices, after the SCORE training, decided to tackle this problem first.

The first step consisted of removing unneeded items from the store to free space and declutter the place. Once unwanted items were removed, the team re-arranged needed materials. In line with good inventory management practices, the First in First Out (FIFO) method was applied while rearranging materials on the racks and shelves to ensure that goods, procured first, are used first to eliminate wastes. Similar items were also kept together so that workers can easily locate them. Racks and shelves were carefully labelled to enable easy retrieval of items required. To improve stock control, visual management technique was used. A board was introduced to record materials which would be regularly updated.

Results achieved

The storeroom was transformed after the implementation of afore-mentioned measures. After decluttering the store from unneeded items, space was retrieved.

Tangible results achieved

- Space optimisation:21 square feet to 43 square feet
- 2-3 emptied shelves, space optimisation
- Easy traceability of items on racks, resulting in reduction of searching time from 3 minutes to 1 minute
- Better stock update after placing the visual board. Stock update is done on a daily basis.

The rearrangement of materials in shelves and racks resulted in a reduction in search time -workers now take about one minute to look for required materials. The introduction of the board to manage stock has led to better stock management. Moreover, as a measure to improve housekeeping in the company, a cleaning schedule has been put in place.



Systematic Arrangement in FIFO system



Items of same type stored together with proper labels



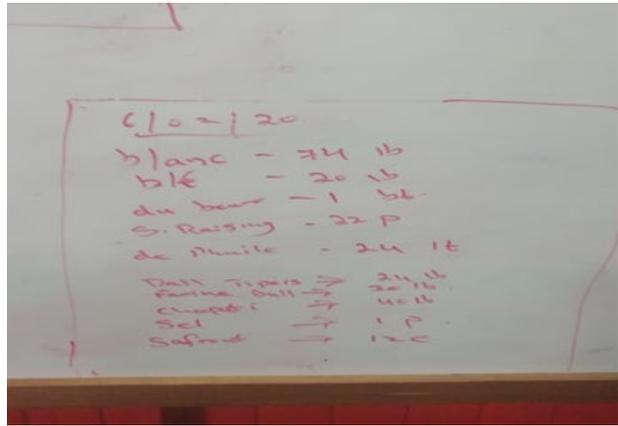
Sorted items and properly arranged



Labelling items on racks



Easy Traceability of items on racks



Better stock update with the visual board in place

Weekly Cleaning Schedule

Area	Name	Monday		Tuesday		Wednesday		Thursday		Friday		Saturday	
		Clean	Check	Clean	Check	Clean	Check	Clean	Check	Clean	Check	Clean	Check
Toilets													
Mess room													
Dish Washing Machines													
Gas connections pipe													
Hot cooking plates													
Work Tables													
Floor													
Packing													
Store													
Office													
Entrance													
Gas connections outside													
Delivery Vans													

Better housekeeping with the cleaning schedule introduced



“I never thought that the SCORE Training will change my life. To start, the training conducted by Mr Ganesh was very interesting and helpful. After the training I was empowered to work on several improvement projects at Royaume des Délices. In fact, I am really impressed with the store. The store is now well organized.

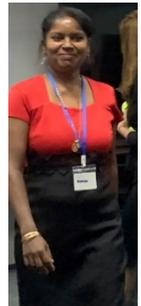
The shelves are re-arranged with proper labelling. The store is more spacious and it is easy for everyone to circulate and retrieve items in one minute.”

**Shaan,
Salesman, Royaume des Délices**

A happy employee is a productive employee

Introduction

There is a common saying “Cleanliness is next to Godliness”. Cleanliness and Hygiene are habits which is learned and shared over time both on personal and professional level. When it comes to the workplace, cleanliness and hygiene are of utmost importance as it is where we spend most of the time “I never thought that the mess room will transform in such a pleasant environment, where we feel comfortable, at ease and cozy!” highlighted Premila, floor supervisor of Royaume des Delices.



We often associate cleanliness to ladies; Premila, is one of them. Why is Premila so happy about the transformation of the mess room? It is because for years and years Premila and her colleagues were having food in a supposed “mess room” which however, at a glance, can be described as a store room.

The situation before

Premila has been working at Royaume des Delices for the last 10 years. She joined the company quite young where she was recruited as operator and after acquiring experience over the years, she was offered the place of a floor supervisor.

When Premila first joined Royaume des Delices, the company was very small, like other family businesses, where there was limited space for operations and barely space for amenities like toilets and mess room as they are considered as less important in a factory. At Royaume des Delices, even though there are more working women than men, 15 lady operators, there was no separate toilets for the ladies. Even worst, the toilets were found in the same area as the mess room. The messroom being close to toilets is considered to be unhygienic as there was more risks of proliferation of germs, flies and other insects. So, having their lunch in the same area was not the best environment.

Moreover, all unused items were stored in the messroom, such as unused utensils, broken chairs, broken tables and refrigerators used for storage of products.



“We are aware that the messroom is not in a proper condition at all, but we are so absorbed in our daily routine that we do not have time to look after the messroom!”, said Premila.

There was insufficient space in the mess room and it was not pleasant to sit during lunch and break time to have a chat.

In addition, both males and females were using the same toilet. There were no separate toilets for males and females which was quite embarrassing; the ladies were not comfortable as the toilets were kept dirty, broken, smelly and they even found themselves in cleaning these toilets which discouraged them in taking the initiative of changing these conditions. The team lacked cooperation to change their own situation as they were all busy doing their own work. There was no motivation to get out of their comfort zone and make changes to benefit the employees and the company. On the other hand, there was not a proper channel or platform to communicate such issues with the management.

Messroom



The coming of the SCORE Training

A training programme on Score Accelerator was conducted at NPCC in November 2019. Premila and other representatives from Royaume des Delices attended the training sessions. During the training, the participants learned on workplace cooperation and principles of good housekeeping and along with other colleagues, Premila was given the challenge of making improvements in the mess room for the well-being of everyone. Premila seized this opportunity to bring changes in the mess room as at least now they have a good “excuse” to TRANSFORM the messroom into a nicer one. To make the improvement successful, Premila and the other trained employees shared the SCORE Programme with other colleagues. A group of staff known as the Enterprise Improvement Team (EIT) took the challenge to transform the messroom which was in a pitiful state. Their commitment could soon be demonstrated by accepting and performing the 5S challenge in the messroom. Within 2 days, there was a real transformation both in the toilets and mess room.

Messroom after and female toilet



With the commitment of the EIT and the trainers, there was a huge difference between the mess room before implementing the SCORE programme and after. Now the messroom looks like a real messroom where one can have their lunch, tea, or spend time to relax. The mess room is clean, there is more space as unused items have been removed.

There is also a wooden partition to separate the toilets from the mess room. Moreover, male and females do not use the same toilets anymore and the maintenance and cleaning are done regularly.

Toilet male and partition



Moreover, with the setting up of the EIT team, things have accelerated. With the culture of daily line meetings, they are able to share their views and opinions openly so as immediate action is taken. Under the leadership of Premila, there is a cleaning schedule shared among the employees so as to empower each and every one on maintaining the toilets and messroom neat and clean.

Benefits of the SCORE Training and Testimonies

The life of the employees has changed. Premila expressed her happiness openly. She mentioned that without the SCORE project this transformation would not have been possible. There is now a feel-good factor when you enter the mess room. She feels comfortable, because everywhere is neat, spacious, there is proper ventilation and most importantly a disciplined mind set with regards to the mess room and toilets.

“The SCORE Training has encouraged and motivated us to work in teams, the SCORE programme made us realise that without team work nothing is possible!” mentioned smilingly Premila.



Premila has also taken the commitment to sustain the 5S carried out in the store. In fact, 5S is a new tool for her, she never heard about the word 5S before. Premila is so proud of her achievement and she realizes that hard work pays off.

“The SCORE programme has changed my habits and my way of thinking; The SCORE project has motivated me to get out of my comfort zone! I am grateful to Mr. Ganesh who guided us during the SCORE programme” said Premila



SSS Furniture Ltd

Improvement of throughput efficiency of production line at SSS Furniture Ltd through Value stream Mapping

Company Profile	
Name	SSS Furniture Ltd
Address	Valentina Road, Phoenix, Mauritius
Number of employees	46 (mainly migrant workers from Bangladesh)
Products	Wooden household and office furniture

What was the situation?

In today's competitive market environment, it is important for enterprises to continuously review and improve their production process. Reducing or eliminating non-value-added activities and wastes from various processes is vital to reduce lead time, lower costs and improve customer satisfaction. One of the key challenges faced by SSS Furniture last December was high inventory level and increasing customer complaints. With more demand for its products, workers were being pressurised to produce. Several 'priority' orders were being processed, keeping other products on hold, sometimes for a long period, to cater for the fast track order, without a proper monitoring of what is actually being manufactured. Job sheets were spread everywhere on the shop-floor, making it tedious to track orders.

Under prevailing conditions, it was important for SSS Furniture to undertake an assessment of the current production process to identify loopholes and reduce customer complaints.

Assessing the efficiency of kitchen making process through value stream mapping technique

Since it was beyond the scope of the project to analyse the production efficiency of all products, it was decided to focus only on one product. The product family kitchen (large and small) was selected because they are considered as fast-moving items.

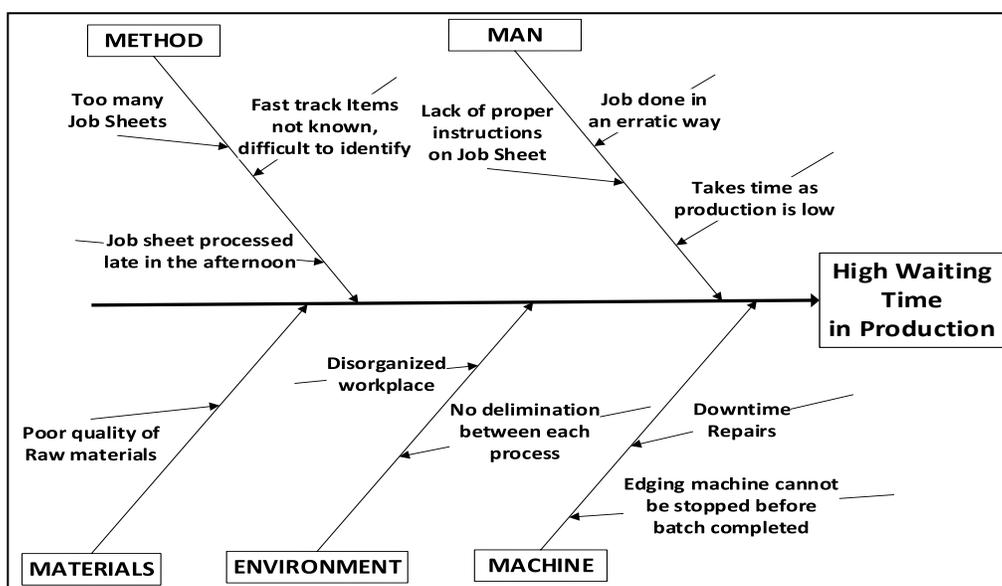
A value stream includes all activities required to transform a product from raw materials into finished goods. Value Stream Mapping (VSM) is a useful tool to see hidden wastes and sources of these wastes in a manufacturing facility, primarily for discerning between activities that adds value to the process and activities that do not.

Using the Value Stream Mapping Technique, the current state of kitchen making process was mapped. The current state map included all steps in the process of kitchen making, starting from receipt of customer order until the finished product is delivered. Data retrieved from job sheets during the month of January and February were used to compute cycle time.

The next step consisted of analysing the current state map and identifying areas of improvement to increase the throughput efficiency. The analysis revealed that 85% of time taken to process large kitchens was made-up of “Waiting Time” only 15% remaining was value adding. For small kitchens, the Value added was only 12%. Areas of improvements needed to be identified to increase the throughput efficiency.

Finding solutions and implementing them

Given the high level of waste (85% for large kitchen), the Failure Mode and Effects Analysis (FMEA) technique and fishbone diagram were used to identify the root causes of high waiting time in production.



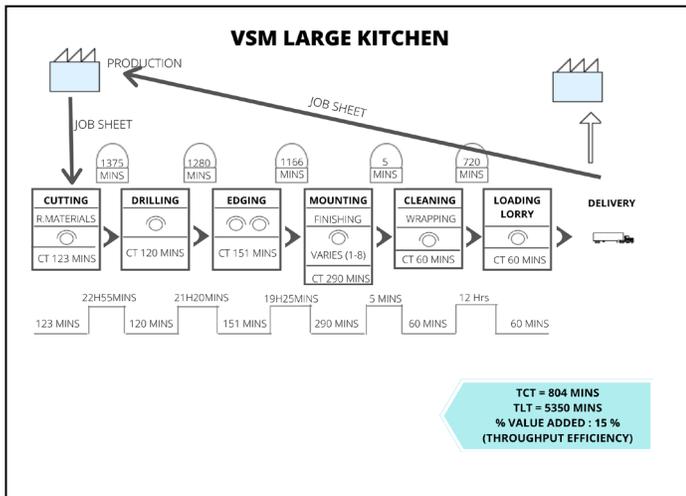
- A Process Failure Mode Effects Analysis (PFMEA) is a structured analytical tool used to identify and evaluate the potential failures of a process. PFMEA helps to establish the impact of the failure, and identify and prioritize the action items with the goal of alleviating risk.
- The fishbone diagram identifies many possible causes for an effect or problem.

Improvements implemented

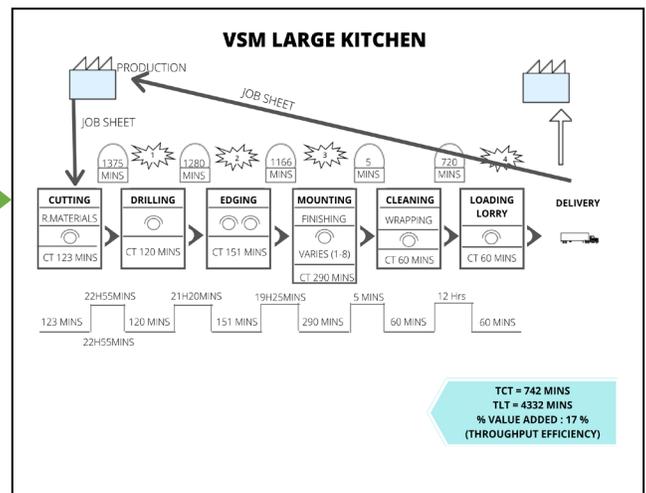
- The company decided to sensitise the employees on the need to start and finish one Job Sheet in one go.
- A special coloured job sheet will be used for fast-moving manufacturing items- one colour for walk in customers and another colour for the main retailers.
- The company used one of the Information Sharing Boards in the production as a system to monitor the progress of the job sheets in each process. The Board was also used as Kanban (during non- peak periods) to pull orders when one order was completed.
- The new layout of the factory, with more freed space, also helped to control the material flow as well as the WIP between two processes.

Key benefits shown by the VSM for large kitchens

VSM 'before' for large kitchens



VSM for large kitchens ('After')



	Before	After	Improvements/reduction
% Value Added	15%	17%	2% 
Waiting time (mins)	4546	3590	21% 
Total Lead Time (mins)	5350	4332	19% 
Total Cycle Time (mins)	804	742	7% 



CEO, Mrs Maya Sewnath comments: “The VSM analysis has made us question the efficiency of our production line. In spite of the fact that December was an ‘exceptional’ month, we have to ask ourselves how to increase the value addition of our processes. We will continue to monitor the kitchen making and will apply the tool to the other brands.”

Our Migrant workers are idea generators

Improvements are not one-off but incremental and continuous, this is what SSS Furniture believes into since its participation in SCORE Training. To make improvements, ideas are necessary and to have ideas, thinkers have to be around. This case shows the incredible contribution of two Bangladeshis in improving their working environment.

Introduction to idea generator 1



Mohammad Fozlur Rhaman works in the Finishing department at SSS Furniture. He is a quality controller. Rhaman is a Bengali and came to Mauritius mostly to improve his standard of living. His dream is to become an entrepreneur in Bangladesh.

The Plywood dilemma

Plywood is one of the raw materials needed in the manufacturing of furniture. Different plywood serves for different usage in the making of furniture. The dilemma was that the plywood sheets were stacked in a disorderly manner. This took a lot of time to sort the needed sheet or can, by mistake, take the inappropriate sheet for manufacturing, leading to reworks.

Rhaman's golden idea cleared the dilemma

During a suggestion round by the administrative staff, Rhaman proposed the idea to have a rack in the storage area where plywood sheets are stacked with labelling for each type of plywood. The idea was instantly approved and implemented.

Rhaman's idea materialised and results reaped

The idea, once materialised, showed results. Employees witnessed the easy retrieval of sheets. The minimum order level was also visible for each plywood type, enabling replenishment on time. There was also less and less errors in picking the wrong plywood for manufacturing purposes.



Introduction to idea generator 2

Rapon Majumdar works as Supervisor at SSS Furniture. He has a long career in the textile industry in Mauritius and has learnt the creole language. He is the language mediator for other Bangladeshi employees at SSS Furniture.



The language barrier

Effective communication is vital for successful relationships. At SSS Furniture, the Bangladeshis were of a different view. They could not understand the instructions that were given to them by management. They came to Mauritius with their mindset and own culture and were reluctant to embrace the new culture of continuous improvement that was emerging in the company. The migrants were leaving their wastes on the shop floor and did not use bins. They also did not consider it important to clean up after having their meals.

The mediator in action

Rapon was fluent in both Creole and Bangladeshi. He decided to sit down with Administration and design posters, mostly visuals with some text in Bangladeshi, showing what were the 'do' and what were the 'don'ts'.

Astounding results

We often say that visuals talk more than words. This is what happened at SSS Furniture. The Bangladeshi were, all day long, in front of posters telling them what are the right behaviours to be adopted and they drastically changed theirs.

Rapon also introduce new ideas like checklists for all furniture items in the delivery bay to facilitate the loader of lorries. He is not only a mediator but a mentor to other Bangladeshi, for him to discipline others is a must. In his words, 'I am less stressed as anyone can supervise the loading of lorries from now on.'



Idea: Furniture ready to be loaded with the lorry movement and name of driver. (PEEP- a Place for Everything and Everything in its Place)



Employee referring to checklists when mounting furniture and for finishing